## FRIEDMAN & BRUYA, INC.

### **ENVIRONMENTAL CHEMISTS**

Date of Report: July 10, 1996 Date Received: June 27, 1996

Project: Metro Self Monitor, PO #M53790 Date Samples Extracted: July 2, 1996 Date Extracts Analyzed: July 8, 1996

## RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, AND ZINC USING METHOD 6010

## Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	Chromium	Copper	<u>Nickel</u>	<u>Zinc</u>
M53790	0.28	0.35	0.29	<0.05
Method Blank	<0.05	< 0.05	<0.05	<0.05

# FRIEDMAN & BRUYA, INC. ENVIRONMENTAL CHEMISTS

Date of Report: July 10, 1996 Date Received: June 27, 1996

Project: Metro Self Monitor, PO #M53790

## QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 70285 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.28	0.29	4	0-20
Copper	mg/L (ppm)	0.35	0.36	3	0-20
Nickel	mg/L (ppm)	0.29	0.30	3	0-20
Zinc	mg/L (ppm)	< 0.05	< 0.05	nm	0-20

Laboratory Code: 70285 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recover	y Acceptance Criteria
Chromium	mg/L (ppm)	5	0.28	95	80-120
Copper	mg/L (ppm)	5	0.35	91	80-120
Nickel	mg/L (ppm)	10	0.29	93	80-120
Zinc	mg/L (ppm)	5	< 0.05	94	80-120

Laboratory Code: Spike Blank

	Reporting	Spike	% F	Recovery	Acceptance	Relative Percent
Analyte:	Units	Level	MS_	MSD_	Criteria	Difference
				r Elijahi Niri		
Chromium	mg/L (ppm)	5	102	100	80-120	2
Copper	mg/L (ppm)	5	99	101	80-120	2
Nickel	mg/L (ppm)	10	102	100	80-120	2
Zinc	mg/L (ppm)	5	102	102	80-120	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

July 10, 1996

## INVOICE # 96ACU0710-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO #M53790: Results of testing requested by Gerry Thompson, Project Manager for material submitted on June 27, 1996.

	water sample analyzed for						
	Chromium, Copper, Nickel, and Zinc						
	using Method 6010 @ \$65 per sample					\$	65.00
1	Amount Due	17.58	1.01	N. 170 (11)	7.454.5	\$	65.00

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

FORMS/COC

KNJ A 6.27.96 11:00

# SAMPLE CHAIN OF CUSTODY

Send Report To:								
Company ALASKAN COPPER WORKS Contact GERALD THOMPSON Address 628 Hanford Street:								
Address 628 Hanford Street City, State, Zip Seattle, WA 98134								
	2-8375 Fax		-7335	Date				
SITE NO.		PROJ	ECT NAME		PURCHASE OR	DER #		
7238	/	METRO S	ELF N	10NITUR	m 53790	`		
SAMPLERS (signature)					PROJECT LOCA	ATION		
8 9			**************************************		3200 6th A	fue S.		
REMARKS					SAMPLE DISPOSAL IN	FORMATION		
			Y		Dispose after 30 Return Samples Call for Instructi	ons		
Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	Analy Reque			
m 53790	9/27 Bison	Hro	/	70285	5 CR Cu 1	N, ZN		
SIGNAZURE	PR	INT NAME	<u> </u>	COMPAN	Y Date	Time		
Relinguished by:	- GERACO		اری	AC4		10:4-		
Received of D. Wigh		P. Wrigh			Inc 6-27-90			
Relinquished by:								
Received by:								

## FRIEDMAN & BRUYA, INC.

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July 10, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on June 27, 1996 from your Metro Self Monitor, PO #M53790 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson

Chemist

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